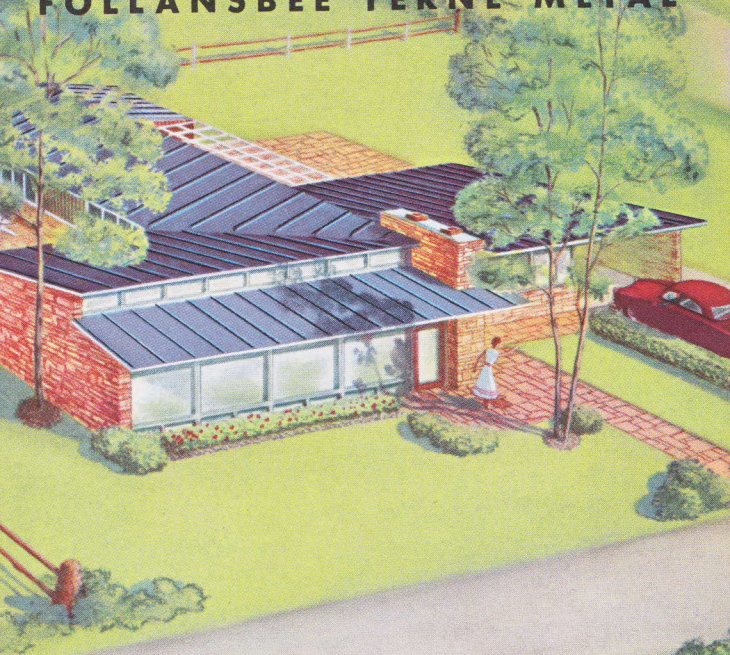


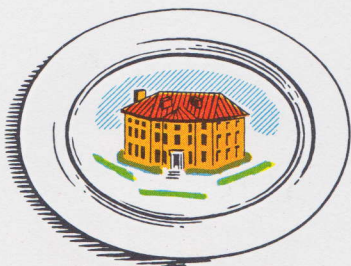
# Beautiful, lasting roofs of

**FOLLANSBEE TERNE METAL**



**FOLLANSBEE STEEL CORPORATION**

**PITTSBURGH 30, PA.**





# three HISTORIC homes

One of the finest examples of 18th century New England Colonial architecture is the historic John Pierpont house in New Haven, Connecticut. After serving as the residence of several generations of the Pierpont family, it was remodeled some years ago as a home for the Faculty Club of Yale University — and in this remodeling the original roof was kept intact. This roof is still in good condition, protecting the house and enhancing its appearance.





In Washington, D.C. is the headquarters of the American Institute of Architects, in the famous Octagon House. This building, started in 1798 and finished in 1800, was designed by Dr. William Thornton for Col. John Tayloe, and remained in the hands of the Tayloe family until sold to the Institute in 1902. There is no record of the type of roof which was on this building originally, but sometime around 1870 it was replaced by a roof of terne metal. After more than three quarters of a century, this roof is still in service — and looks good for decades more.



One of the most prized historic buildings in Tennessee is The Hermitage, the home to which Andrew Jackson retired when he left the White House. This was the fourth home of the name which Jackson built. The third, on the same site, was destroyed by fire in 1834 when the roof was ignited by a spark from a chimney. The house was rebuilt, and Jackson wrote to his adopted son, "Have a tin roof put on it." The roof was finished in 1835 — and is still in service more than a century later.

Examples like these could be quoted by the hundreds — private homes, public buildings, factories, commercial buildings . . . buildings of all types and sizes in all parts of the country, with roofs which have given fine service for several lifetimes because they are made of durable, fire-proof terne metal.



# TERNE and its HISTORY

When Jackson wrote to his son, he specified a 'tin' roof, for the word 'terne' was not applied to this roofing material until about 1850. What he got, however, was terne — an alloy of tin and lead, on a base plate of iron or steel.

Terne was already a century old in Jackson's time. We do not know exactly when it originated, but it must have been shortly after the manufacture of tin plate was begun in Wales in 1720. "Tin" roofs dating back to the early 18th century have been analyzed, and found to be coated with this alloy.

We can only guess as to the motive of the manufacturer who first substituted this alloy for pure tin as a coating for roofing sheets. We can be quite sure, however, that his reason for continuing to call it "tin"





was his unwillingness to let competitors in on his secret. At any rate, Wales continued to supply most of the roofing plate used in this country until importation was virtually shut off by the McKinley Tariff. Manufacture began here on a large scale at this time, much of it under Welsh patents, but the recognition and promotion of terne plate on its own merits did not begin until well into the present century.

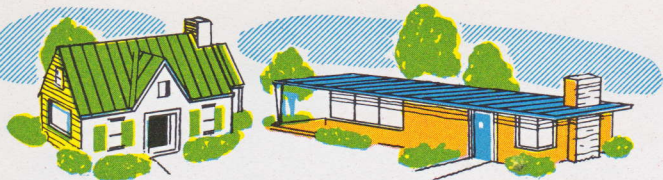
This long period during which terne plate was sold as a form of tin plate laid the foundation for widespread misunderstanding of its characteristics — a mis-

understanding which still exists to a considerable extent. Actually, the merits of the coating, as distinguished from the base plate, do not stem from the tin content at all. Terne is approximately 20 per cent tin; the remaining 80 per cent is lead. The



only function of the tin is to provide a better bond between the coating and the base plate, for tin or terne becomes an integral part of the steel while lead alone does not.

What we have in terne plate, therefore, is the tensile strength of the steel sheet plus the extremely high corrosion resistance of lead. Terne roofs are fireproof, easy to apply, readily painted in any color, inexpensive, and light enough to eliminate special load-bearing sub-structure.



## terne roofs for **TODAY'S HOMES**

For many years, red iron oxide paint was so commonly used for terne roofs that many people came to believe that only this paint could be used. It is still one of the best base coats — but the finish coat may be of any color desired. Paint manufacturers today offer a number of paints, in a wide variety of colors, which meet all requirements for use on terne roofs.

This range of roof colors opens up new possibilities in home beauty. Roof and walls can be in harmony with each other and the whole building can harmonize with its surroundings. When repainting is necessary, the whole house is renewed — you do not have freshly-painted walls and a dull, weatherworn roof. Color schemes can be changed throughout — not merely from the eaves down.

Design possibilities too, are almost endless. Height and spacing of standing seams, and height, width and spacing of battens in ribbed roofs may be varied, and standing seams and battens may be combined in a variety of ways, thus permitting a variety of patterns limited only by the imagination of the architect.

This versatility is one of the reasons why terne, after a wartime absence of nearly ten years, is exceeding its pre-war popularity for homes of all sizes and types, in all parts of the country.







# Color Harmony with **TERNE**

These pages illustrate the variety of exterior color schemes which are possible with terne roofs. The illustration in the center is a color photograph of a home in the exclusive residential section of Fox Chapel, Pa. The smaller illustrations show other attractive color combinations for the same home.



## recommended paints for TERNE ROOFS

Virtually all leading paint manufacturers report that their line of products includes paints suitable for terne metal roofs. Your local paint dealer will know what paints each manufacturer recommends, or can obtain this information either from the paint company, or from Follansbee Steel Corporation.

Recommendations from the following companies are in our files:

Baer Brothers  
Samuel Cabot, Inc.  
Devoe & Raynolds Company, Inc.  
E. I. duPont deNemours & Company  
The Eagle-Picher Company  
W. P. Fuller & Company  
The Glidden Company  
A. C. Horn Company, Inc.  
The Lowe Brothers Company  
McMurtry Manufacturing Company  
National Lead Company  
The O'Brien Corporation  
Pittsburgh Plate Glass Company  
Pratt & Lambert, Inc.  
Republic Paint & Varnish Company  
Sapolin Paints, Inc.  
The Sherwin Williams Company  
Southport Paint Company, Inc.  
Toch Brothers  
Vita-Var Corporation  
The Watson Standard Company

Whatever paint you use, it is essential that the surface be well-cleaned. It is recommended that terne with priming coat on one side be used. This side should be *down*. The unpainted side should receive a first coat of red iron oxide or other primer recommended by the paint manufacturer.

# Follansbee SEAMLESS TERNE



High quality terne plate requires painstaking control at every stage in its production, and this careful control can be achieved successfully only through long preparation and experience.

Follansbee's interest in terne metal dates back, through predecessor companies, well over a century and a quarter. For the first half of this period, Welsh producers dominated the market and American companies were merely importers and distributors. The Follansbee brothers, who organized the present company, handled one of the best-known of the Welsh ternes, and when tariff barriers permitted the growth of the industry in this country they became manufacturers.

For more than sixty years Follansbee has been producing high-quality terne plate, and during this period the company has made many contributions to the improvement of the product and of manufacturing processes.

The base plate of Follansbee terne is low carbon, copper bearing, open hearth steel strip virtually free of sulphur, phosphorus, or other chemicals which might have an undesirable effect on the terne coating. In the Follansbee plant, the strip is first heat-treated to give it the exact stiffness desired. It is then put through various cleaning processes, through a flux bath into the pure hot terne metal, and





finally through special coating machines. An oil bath and several other processes follow before the terne plate is ready for the inspection table.

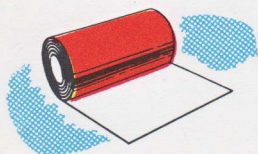
The final result is a tough, ductile, sheet with a heavy coating of terne which will protect the steel base sheet from corrosion for generations.

For many years, terne roofing was supplied only in relatively small sheets, 20" by 28" being the most common. The many cross seams required in making a roof of these sheets added to the time and cost, and also presented a major maintenance problem in terne roofs. Follansbee pioneered in the development of "long ternes" — sheets up to 10 feet in length, and a little over 10 years ago took the final step of supplying terne roofing in seamless 50 foot rolls.



Follansbee Seamless Roll Terne Roofing eliminates cross seams entirely. Strips can be cut to the exact length desired either in the shop or on the job. It lays flat and square, requires a minimum time for installation. If desired it can be supplied with a base paint coat on both sides, but it is preferable to have it on one side only, and to lay the terne with the unpainted side up.

In durability, Follansbee Seamless Terne Roofing matches the famous ternes of the past; in tensile strength, dimensional precision and ease of application it is superior to them.





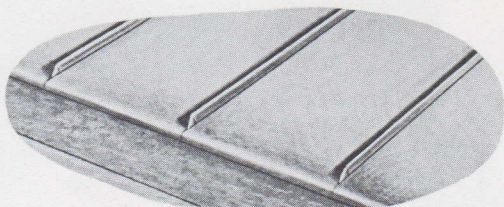
## how TERNE ROOFS are installed

For best results, terne roofs are installed on wood sheathing of good quality, well-seasoned, and as free from knots as possible. Plywood, as little as three-eighths of an inch in thickness, is entirely suitable for this purpose.

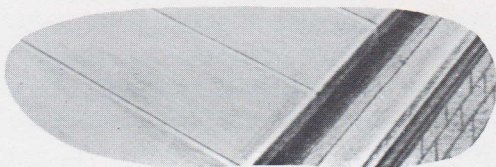
Waterproof, rosin-sized, building paper is laid over the sheathing. Tar paper, or other paper containing acid must not be used.

The terne metal is then cut from the rolls in lengths to provide a continuous strip from ridge to eaves. *Nails are never driven through these strips.* Instead, cleats of the same material are nailed to the roof, the nails being placed as close as possible to the bend in the cleat. The end of the horizontal part of the cleat is bent over to cover the nail heads. The cleats are placed at 12 inch intervals along the edge of the strip, and cleats on opposite sides of the strip are staggered.

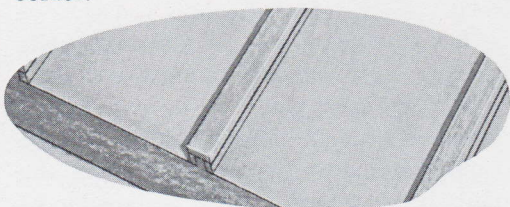
After the cleats are in place along the edge of a strip, the next strip is put in place, covering the nailed part of cleats. The edges of the two strips and the vertical part of cleats along these edges are then folded over to make a seam.



There are three basic types of terne roofs, the difference being in the way in which the strips are joined together. *Standing seam* roofs have double locked unsoldered seams which, when finished, stand up about an inch from the surface of the roof.



*Flat locked seams* are turned over, malletted flat to the roof, and well soaked with solder.



*Ribbed* or *batten* roofs have vertical battens nailed to the sheathing, and terne metal strips cover both sheathing and battens. Large roof areas lend themselves especially well to this type of treatment.

Unlike other metals which are sometimes used for roofing, Follansbee terne expands and contracts so little with changes in temperature that no allowance need be made for this. "Expansion joints" are unnecessary; seams are tight, so that the whole roof is a continuous sheet of metal.





## Help in *Planning*

If you are planning a new home, or a new roof for your present home, consult your architect or sheet metal contractor about the advantages of Follansbee Seamless Terne Roofing.

Detailed specifications and instructions on the installation of Seamless Terne roofs are available for architects and contractors, together with suggestions as to roof designs and color schemes. We will be glad to send this material to them at your request.

Just send their names to Follansbee Steel Corporation, Pittsburgh, Pa.

